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EXAMINER

CHOW, JEFFREY J

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,656	Applicant(s) TOBIAS ET AL.	
	Examiner Jeffrey J. Chow	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-94 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 – 70 and 92 – 94 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Based on *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978), *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876), and *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008) decisions indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For instance, the image process, including generating is of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine. The Applicant has provided no explicit and deliberate definitions of “generating” to limit the steps to the electronic form, and the claim language itself is sufficiently broad to read on a person creating a three-dimensional object relating to financial products.

Claim 71 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Though claim 71 recites a “system” comprising components, the

original specification discloses the system to be software implemented (page 5, lines 8 – 22). As a result, the claimed components does not map to any specific hardware components but to software components. Therefore, the “system” is nothing more than functional descriptive material per se, and hence is nonstatutory. Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “functional descriptive material” is nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

Claims 73, 90, and 91 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 73, 90, and 91 recite “an image display data”, which is being claimed. The image display data is non-functional descriptive material per se, and hence is nonstatutory. Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. § 101. Certain types of descriptive material, such as music, literature, art, photographs and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. Nonfunctional descriptive material may

be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. § 101.

Claims 74 and 84 – 88 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 74 and 84 – 88 recite a “graphical user interface”. The claimed graphical user interface is software. Therefore, the “graphical user interface” is nothing more than functional descriptive material per se, and hence is nonstatutory. Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “functional descriptive material” is nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

Claims 75 – 83 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Though claim 71 recites a “system” comprising various modules, the original specification discloses the modules to be software components (page 5, lines 8 – 22). As a result, the claimed components does not map to any specific hardware

components but to software components. Therefore, the “system” is nothing more than functional descriptive material per se, and hence is nonstatutory. Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “functional descriptive material” is nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4 – 9, 11 – 19, 37 – 42, 46 – 49, 54, 55, 59, 60, 63, 64, 68 – 76, 79, 80, 84, 85, and 89 – 93 are rejected under 35 U.S.C. 102(b) as being anticipated by Sacerdoti (US 6,222,540).

Regarding independent claim 1, Sacerdoti teaches an imaging process, including generating image display data representing a three-dimensional object at the origin of a spatial coordinate system, the three dimensions of said object representing respective financial data for a financial product (Figure 4).

Regarding dependent claim 2, Sacerdoti teaches said object is represented isometrically by said image display data (Figure 4).

Regarding dependent claim 4, Sacerdoti teaches the three dimensions of said object represent respective parameters of said financial data (Figure 4: Volume, Price, Debt/Equity).

Regarding dependent claim 5, Sacerdoti teaches said parameters are selected by a user (column 7, lines 10 – 14: user inputs regarding what database variables the user wishes to correlate to what graphics attributes).

Regarding dependent claim 6, Sacerdoti teaches generating control data for generating user interface components to allow a user to select one or more of said financial product and said parameters of financial data for said product (column 7, lines 10 – 14: user inputs regarding what database variables the user wishes to correlate to what graphics attributes).

Regarding dependent claim 7, Sacerdoti teaches generating at least one of said parameters from said financial data (column 7, lines 10 – 14: user inputs regarding what database variables the user wishes to correlate to what graphics attributes).

Regarding dependent claim 8, Sacerdoti teaches the color of said object represents financial data for said product (column 7, lines 59 – 62: graphics attributes can include attributes of the objects to be displayed, e.g., color, size intensity, texture, rotation, shininess, etc.).

Regarding dependent claim 9, Sacerdoti teaches the color of said object represents a parameter of said financial data (Figure 4: Volume, Price, Debt/Equity).

Regarding dependent claim 11, Sacerdoti teaches said parameters of Said financial data for said financial product are normalized with respect to respective parameters of financial data for a plurality of financial products (column 10, line 64 – column 11, line 8: normalization and re-normalization of one or more graphics objects).

Regarding dependent claim 12, Sacerdoti teaches said parameters of said financial data for said financial product are normalized with respect to respective parameters of financial data for the overall market for said financial product (column 10, line 64 – column 11, line 8: normalization and re-normalization of one or more graphics objects).

Regarding dependent claim 13, Sacerdoti teaches the parameters of said financial data for said financial product are quantized (Figure 4: Volume, Price, Debt/Equity).

Regarding dependent claim 14, Sacerdoti teaches the dimensions of said object are quantized (Figure 4: Volume, Price, Debt/Equity).

Regarding dependent claim 15, Sacerdoti teaches generating display data for displaying a financial data value for said financial product in response to movement of a pointing device over a corresponding portion of an image generated from said image display data (column 9, lines 17 -- 30: user uses a mouse to change the presentation of the graphics objects).

Regarding dependent claim 16, Sacerdoti teaches regenerating said image display data to reflect changes in said financial data (column 7, lines 1 -- 9: real-time input).

Regarding dependent claim 17, Sacerdoti teaches said image display data includes image animation data for generating an animated representation of said object representing changes of said financial data over time (column 5, lines 56 -- 67: animation).

Regarding dependent claim 18, Sacerdoti teaches said financial product includes a stock (column 7, lines 27 -- 34: stocks).

Regarding dependent claim 19, Sacerdoti teaches the three dimensions of said object respectively represent one or more of price (Figure 4: Price), income, growth, return on assets, debt to equity ratio (Figure 4: Debt/Equity), and volume of trading of said stock (Figure 4: Volume).

Regarding dependent claim 37, Sacerdoti teaches generating image display data representing two or more objects for respective financial products to enable comparison of said financial products (column 10, line 64 – column 11, line 8: one or more graphics objects), wherein the color of each object represents financial data for the corresponding financial product (column 7, lines 59 – 62: graphics attributes can include attributes of the objects to be displayed, e.g., color, size intensity, texture, rotation, shinyness, etc.).

Regarding dependent claim 38, Sacerdoti teaches generating image display data representing two or more objects for respective financial products to enable comparison of said financial products (column 10, line 64 – column 11, line 8: one or more graphics objects), wherein the three dimensions of each object represent respective financial data for the corresponding financial product (Figure 4).

Regarding dependent claim 39, Sacerdoti teaches the color of each object represents financial data for the corresponding financial product (column 7, lines 59 – 62: graphics attributes can include attributes of the objects to be displayed, e.g., color, size intensity, texture, rotation, shinyness, etc.).

Regarding dependent claim 40, Sacerdoti teaches said image display data represents said two or more objects at the origin of a spatial coordinate system (Figure 4).

Regarding dependent claim 41, Sacerdoti teaches said image display data represents said two or more objects at the origins of respective spatial coordinate systems (Figure 4).

Regarding dependent claim 42, Sacerdoti teaches said financial products include stocks (column 7, lines 27 -- 34: stocks).

Regarding dependent claim 46, Sacerdoti teaches selecting at least one financial product on the basis of a comparison of financial data for said at least one financial product with predetermined financial data (column 12, lines 37 -- 58: user can specify that an object split into its sub-components when the size of the object exceeds a predetermined size).

Regarding dependent claim 47, Sacerdoti teaches said predetermined financial data is specified by a user (column 12, lines 37 -- 58: user can specify that an object split into its sub-components when the size of the object exceeds a predetermined size).

Regarding dependent claim 48, Sacerdoti teaches selecting at least one financial product corresponding to a selected financial product category (column 10, lines 7 -- 13 and Figure 4: users selects from the variables list 40).

Regarding dependent claim 49, Sacerdoti teaches selecting at least one financial product on the basis of a comparison of financial data for said at least one financial product with corresponding financial data for another selected financial product (column 11, lines 9 – 25: the graphics plot 46 can shift any visual attribute by selecting a particular value of the corresponding variables as a “zero point” for the scale of the attribute for each element in the database/spreadsheet).

Regarding dependent claim 54, Sacerdoti teaches generating a display of said image display data (Figure 4).

Regarding independent claim 55, Sacerdoti teaches an imaging process, including generating image display data representing a three-dimensional object, the three dimensions and the color of said object representing respective financial data for a financial product (Figure 4).

Regarding independent claim 59, Sacerdoti teaches an imaging process, including generating image display data representing a three-dimensional object (Figure 4), the three dimensions of said object representing performance data for a fund over respective time periods (column 16, lines 1 – 13: time periods).

Regarding dependent claim 60, Sacerdoti teaches said periods are periods of one, three, and five years (column 16, lines 1 – 13: days, or months, or other time periods).

Regarding independent claim 63, Sacerdoti teaches an imaging process, including generating image display data representing a three-dimensional object at the origin of a spatial coordinate system (Figure 4), the three dimensions and color of said object representing respective financial data for a financial product (column 7, lines 27 – 34: stocks).

Regarding dependent claim 64, Sacerdoti teaches said financial data is normalized with respect to other financial products (column 10, line 64 – column 11, line 8: normalization and re-normalization of one or more graphics objects).

Regarding independent claim 68, Sacerdoti teaches an image data process, executed by a computing device (Figure 1), including generating image display data for displaying a three-dimensional object at the origin of a spatial coordinate system (Figure 4), the three dimensions of said object representing respective financial data for a financial product (column 7, lines 27 – 34: stocks).

Regarding dependent claim 69, Sacerdoti teaches sending said image display data to a display device for display to a user (Figure 4).

Regarding dependent claim 70, Sacerdoti teaches generating a display of said object representing said image display data (Figure 4).

Regarding independent claim 71, Sacerdoti teaches a system having components (Figure 1).

Regarding independent claim 72, Sacerdoti teaches a computer readable storage medium having stored thereon program code (claim 1).

Regarding independent claim 73, Sacerdoti teaches image display data generated (Figure 1).

Regarding independent claim 74, Sacerdoti teaches a graphical user interface including image display data generated (Figure 1).

Regarding independent claim 75, Sacerdoti teaches an imaging system, including a visualization module for generating image display data representing at least one three-dimensional object at the origin of a spatial coordinate system (Figure 4), the three dimensions of each object representing respective financial data for a corresponding financial product (column 7, lines 27 – 34: stocks).

Regarding dependent claim 76, Sacerdoti teaches the system is adapted to receive said financial data from a remote system to enable said visualization module to update said image display data (column 4, lines 12 – 20: Internet).

Regarding dependent claim 79, Sacerdoti teaches the financial data for each financial product is normalized with respect to other financial products (column 10, line 64 – column 11, line 8: normalization and re-normalization of one or more graphics objects).

Regarding dependent claim 80, Sacerdoti teaches the color of each object represents financial data for the corresponding financial product (column 7, lines 59 – 62: graphics attributes can include attributes of the objects to be displayed, e.g., color, size intensity, texture, rotation, shininess, etc.).

Regarding independent claim 84, Sacerdoti teaches a graphical user interface, including a display of a three-dimensional object at the origin of a spatial coordinate system (Figure 4), the three dimensions of said object representing respective financial data for a financial product (column 7, lines 27 – 34: stocks).

Regarding dependent claim 85, Sacerdoti teaches the color of said object representing financial data for said financial product (column 7, lines 59 – 62: graphics attributes can include attributes of the objects to be displayed, e.g., color, size intensity, texture, rotation, shininess, etc.).

Regarding independent claim 89, Sacerdoti teaches a computer program, stored on computer readable media (claim 1), for generating image display data representing a three-dimensional object at the origin of a spatial coordinate system (Figure 4), the three dimensions of

said object representing respective financial data for a financial product (column 7, lines 27 – 34: stocks).

Regarding independent claim 90, Sacerdoti teaches image display data, including image coordinate data representing a three-dimensional object at the origin of a spatial coordinate system (Figure 4), the three dimensions of said object representing respective financial data for a financial product (column 7, lines 27 – 34: stocks).

Regarding dependent claim 91, Sacerdoti teaches color data representing color of said object, said color representing financial data for said financial product (column 7, lines 59 – 62: graphics attributes can include attributes of the objects to be displayed, e.g., color, size intensity, texture, rotation, shininess, etc.).

Regarding dependent claim 92, Sacerdoti teaches the financial data represented by said color is normalized with respect to a plurality of financial products (column 10, line 64 – column 11, line 8: normalization and re-normalization of one or more graphics objects).

Regarding dependent claim 93, Sacerdoti teaches the financial data represented by said color is normalized with respect to an overall market for said financial product (column 10, line 64 – column 11, line 8: normalization and re-normalization of one or more graphics objects).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 10, 20 – 36, 43 – 45, 56 – 58, 61, 62, 65 – 67, 77, 78, 81 – 83, 86 – 88, and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacerdoti (US 6,222,540).

Regarding dependent claim 3, Sacerdoti does not expressly disclose said object is a cuboid or rectangular parallelepiped. Examiner takes Official Notice that the concept of graphing three variables in a three-dimensional graph, such as a cuboid or a parallelepiped, and the advantage of analyzing and determining correlation among the three variables are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Sacerdoti's system to incorporate three-dimensional graphs. One would be motivated to do so because this would help analyze and determine correlation of three desired variables.

Regarding dependent claim 10, Sacerdoti does not expressly disclose the color of said object represents a measure of risk for said financial product, however Sacerdoti does disclose graphics attributes can include attributes of the objects to be displayed, e.g., color, size intensity, texture, rotation, shininess, etc.(column 7, lines 59 – 62). Examiner takes Official Notice that the concept of graphing risk in color and the advantage of further analyzing financial products are well known and expected in the art. It would have been obvious for one of ordinary skill in

the art at the time of the advantage to modify Sacerdoti's system to graph risk in color. One would be motivated to do so because this would help further analyze a financial product.

Regarding dependent claim 20, Sacerdoti does not expressly disclose the three dimensions of said object represent respective measures of price, income, and growth of said stock, however Sacerdoti does disclose measure of price (Figure 4: Price). Examiner takes Official Notice that the concept of graphing any three variables, for example price, income, and growth of stocks, in a three-dimensional graph and the advantage of further analyzing stocks are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system to graph any three variables, for example price, income, and growth of stocks, in a three-dimensional graph. One would be motivated to do so because to help further analyze stocks.

Regarding dependent claim 21, Sacerdoti does not expressly disclose said measures include price to earnings ratio, dividend yield, and growth in earnings per share, however Sacerdoti does disclose ratio of price/earnings (column 7, lines 49 – 53). Examiner takes Official Notice that the concept of graphing any three variables, for example price to earnings ratio, dividend yield, and growth in earnings per share, in a three-dimensional graph and the advantage of further analyze financial products are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system to graph any three variables, for example price to earnings ratio, dividend

yield, and growth in earnings per share, in a three-dimensional graph. One would be motivated to do so because to help further analyze financial products.

Regarding dependent claim 22, Sacerdoti teaches said measures are normalized with respect to respective measures for a plurality of stocks (column 10, line 64 – column 11, line 8: normalization and re-normalization of one or more graphics objects).

Regarding dependent claim 27, Sacerdoti does not expressly disclose said financial product represents an aggregate of funds and stocks. Examiner takes Official Notice that the concept of measuring and graphing aggregate funds and stocks and the advantage of analyzing desired data are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system by measuring and graphing aggregate funds and stocks. One would be motivated to do so because this would allow a user to analyze desired data.

Regarding dependent claims 25 and 26, claims 25 and 26 are similar in scope as to claim 27, thus the rejection for claim 27 hereinabove is applicable to claims 25 and 26.

Regarding dependent claims 28 and 29, Sacerdoti does not expressly disclose said financial product includes a managed fund or a mutual fund and said dimensions represent respective measures for said fund. Examiner takes Official Notice that the concept of measuring and graphing managed funds and mutual funds and the advantage of analyzing desired data are

Art Unit 2628

well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system by measuring and graphing managed funds and mutual funds. One would be motivated to do so because this would allow users to analyze desired data.

Regarding dependent claim 30, Sacerdoti does not expressly disclose said measures include one or more of financial return, rolling return, entry fee, management expense ratio, and independent rating. Examiner takes Official Notice that the concept of graphing financial return, rolling return, entry fee, management expense ratio, and independent rating in a three-dimensional graph and the advantage of further analyze financial products are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system to graph financial return, rolling return, entry fee, management expense ratio, and independent rating in a three-dimensional graph. One would be motivated to do so because to help further analyze financial products.

Regarding dependent claims 31 and 33, claims 31 and 33 are similar in scope as to claims 59 and 60, thus the rejections for claims 59 and 60 hereinabove are applicable to claims 31 and 33.

Regarding dependent claim 32, Sacerdoti teaches said periods are selected by a user (column 16, lines 1 – 13: users can specify which variable is to be considered to be time-related).

Regarding dependent claim 36, Sacerdoti teaches said measures are normalized with respect to a plurality of funds (column 10, line 64 – column 11, line 8: normalization and re-normalization of one or more graphics objects).

Regarding dependent claims 43, claims 43 are similar in scope as to claim 28, thus the rejection for claim 28 hereinabove is applicable to claims 43.

Regarding independent claim 56, Sacerdoti teaches an imaging process, including generating image display data representing a three-dimensional object (Figure 4). Sacerdoti did not expressly disclose the three dimensions of said object representing respective measures of price, income, and growth of a stock, however Sacerdoti does disclose measure of price (Figure 4: Price). Examiner takes Official Notice that the concept of graphing any three variables, for example price, income, and growth of stocks, in a three-dimensional graph and the advantage of further analyzing stocks are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system to graph any three variables, for example price, income, and growth of stocks, in a three-dimensional graph. One would be motivated to do so because to help further analyze stocks.

Regarding dependent claims 23, 34, 57, 61, 65, 81, and 86, claims 23, 34, 57, 61, 65, 81, and 86 are similar in scope as to claim 10, thus the rejection of claim 10 hereinabove is applicable to claims 23, 34, 57, 61, 65, 81, and 86.

Regarding dependent claim 24, Sacerdoti does not expressly disclose said risk measure includes a beta value for said stock. Examiner takes Official Notice that the concept of measuring and graphing beta value for a stock and the advantage further analyzing stocks are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system to measure and graph the beta value of stocks. One would be motivated to do so because this would help further analyze stocks.

Regarding dependent claim 35, Sacerdoti does not expressly disclose said risk measure represents the volatility of said fund. Examiner takes Official Notice that the concept of measuring and graphing volatility for a fund and the advantage further analyzing funds are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system to measure and graph the volatility of funds. One would be motivated to do so because this would help further analyze funds.

Regarding dependent claim 44, Sacerdoti does not expressly disclose receiving transaction data in respect of a financial product from a user, and initiating a financial transaction on the basis of said transaction data. Examiner takes Official Notice that the concept of financial products are associate with transactions and the advantage of keeping an up-to-date financial quantity on financial products are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system by incorporating transactions of financial products. One would be motivated to do so because this would keeps an up-to-date financial quantity on financial products.

Regarding dependent claim 45, Sacerdoti does not expressly disclose said initiating includes initiating a financial transaction with a remote transaction system. Examiner takes Official Notice that the concept of servers and satellites, such as banks and ATMs, that handles transactions and the advantage of allowing users to make transactions are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system by incorporating servers and satellites, such as banks and ATMs, that handles transactions. One would be motivated to do so because this would allow users to make transactions.

Regarding dependent claim 58, claim 58 is similar in scope as to claim 24, thus the rejection for claim 24 hereinabove is applicable to claim 58.

Regarding dependent claim 62, claim 62 is similar in scope as to claim 35, thus the rejection for claim 35 hereinabove is applicable to claim 62.

Regarding dependent claims 66, 82, and 87, claims 66, 82, and 87 are similar in scope as to claim 21, thus the rejection for claim 21 hereinabove is applicable to claims 66, 82, and 87.

Regarding dependent claim 67, Sacerdoti does not expressly disclose said financial product includes a managed fund or a mutual fund. Examiner takes Official Notice that the concept of measuring and graphing managed funds and mutual funds and the advantage of

Art Unit 2628

analyzing desired data are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system by measuring and graphing managed funds and mutual funds. One would be motivated to do so because this would allow users to analyze desired data. Sacerdoti does not expressly disclose the dimensions of said object representing measures of financial return over respective periods of time for said fund, however Sacerdoti does disclose period of time (column 16, lines 1 – 13). Examiner takes Official Notice that the concept of measuring and graphing financial return over a period of time and the advantage of analyzing desired data are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system by measuring and graphing financial return over a period of time. One would be motivated to do so because this would allow users to analyze desired data.

Regarding dependent claim 77, Sacerdoti does not expressly disclose a server for receiving a request for said image display data and for sending said image display data in response to said request. Examiner takes Official Notice that the concept of a user's computing device or display device viewing a display of another computing device or display device and the advantage of processing being done on said another computing device or display device instead of the views computing device or display device are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system to allow user's computing device or display device viewing a display of another computing device or display device. One would be motivated to do so because this

relieves user's computing device or display device of generating the image or graph and allow the user can review the generated image or graph remotely.

Regarding dependent claim 78, Sacerdoti does not expressly disclose a transaction module for initiating a financial transaction on the basis of received transaction data in respect of a financial product. Examiner takes Official Notice that the concept of financial products are associate with transactions and the advantage of keeping an up-to-date financial quantity on financial products are well known and expected in the art. It would have been obvious for one of ordinary skill in the art at the time of the advantage to modify Sacerdoti's system by incorporating transactions of financial products. One would be motivated to do so because this would keeps an up-to-date financial quantity on financial products.

Regarding dependent claims 83 and 88, claims 83 and 88 are similar in scope as to claim 67, thus the rejection for claim 67 hereinabove is applicable to claims 83 and 88.

Regarding dependent claim 94, Sacerdoti teaches said risk measure for said stock is normalized with respect to a plurality of stocks (column 10, line 64 -- column 11, line 8: normalization and re-normalization of one or more graphics objects).

Claims 50 – 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacerdoti (US 6,222,540) in view of Weinberg et al. (US 6,237,006).

Regarding dependent claim 50, Sacerdoti does not expressly disclose each said at least one financial product is selected if the dimensions of an object represented by image display data for said at least one financial product are similar to those of the selected financial product. Weinberg discloses a filter button that displays selected objects fitting certain criteria, such as content, type, status (column 17, lines 1 – 37). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Sacerdoti's system to incorporate a filtering system based on size. One would be motivated to do so because this would allow users to focus on desired data for better analysis.

Regarding dependent claim 51, Sacerdoti does not expressly disclose each said at least one financial product is selected if the color of an object represented by image display data for said at least one financial product is similar to that of the selected financial product. Weinberg discloses a filter button that displays selected objects fitting certain criteria, such as content, type, status (column 17, lines 1 – 37). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Sacerdoti's system to incorporate a filtering system based on color, wherein color represents certain types of financial products. One would be motivated to do so because this would allow users to focus on desired data for better analysis.

Regarding dependent claim 52, Sacerdoti does not expressly disclose said selecting includes selecting at least one financial product if the financial data for said at least one financial product is similar to corresponding displayed financial data for another selected financial product. Weinberg discloses a filter button that displays selected objects fitting certain criteria,

such as content, type, status (column 17, lines 1 -- 37). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Sacerdoti's system to incorporate a filtering system based on color, wherein color represents certain types of financial products. One would be motivated to do so because this would allow users to focus on desired data for better analysis.

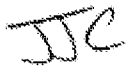
Regarding dependent claim 53, Sacerdoti does not expressly disclose financial data for two or more financial products is similar if differences between the respective financial data are within a predetermined value. Weinberg discloses a filter button that displays selected objects fitting certain criteria, such as content, type, status (column 17, lines 1 -- 37). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Sacerdoti's system to incorporate a filtering system based on size, wherein the size has a range. One would be motivated to do so because this would allow users to focus on desired data for better analysis.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Chow whose telephone number is (571)-272-8078. The examiner can normally be reached on Monday - Friday 10:00AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571)-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



/Kee M Tung/
Supervisory Patent Examiner, Art Unit 2628